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AUS9-2000-0557-US1 PATENT

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Dunsmore et al.	:	Before the Examiner: Elaine L. Gort
Serial No: 09/679,781	:	Group Art Unit: 3627
Filed: October 5, 2000	:	
Title: PAY AT THE TABLE SYSTEM	:	

APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

This Appeal Brief is being submitted pursuant to 37 C.F.R. § 1.192. Appellent is furnishing herewith three (3) copies of this brief.

I. REAL PARTY-IN-INTEREST

The real party-in-interest is International Business Machines Corp., who is the assignee of the entire right and interest in the present Application.

II. RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences known to Appellant, the Appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 29-40 and 55-69 are pending in the Application.

Claims 29-40 and 55-69 stand rejected and are the subject of the instant appeal.

Claims 1-28 and 41-54 have been previously cancelled.

IV. STATUS OF AMENDMENTS

There are no amendments outstanding after the final rejection.

V. SUMMARY

A need exists for restaurant diners to be able to pay their bill without leaving their table and with limited to no assistance from the wait-staff. Related prior art methods provide little more than a portable credit card payment device that is found at many cashier stations throughout the industry. Other prior art primarily concerns the efficient transfer of information between the waiter, kitchen, Maitre D' and parking attendant. However, the prior art does not provide a system that, for example, allows multiple patrons to split a restaurant bill amongst themselves and then pay their respective portions with little to no assistance from a waiter. The invention satisfies this need by providing a waiter's terminal (**Figure 1, 102**) that communicates with a customer's terminal (**Figure 1, 103**) over a network(**Figure 1, 101**). (see *Specification*, page 7, lines 16-17) The customer's terminal (**Figure 1, 103**) has a credit card reader (**Figure 2, 201**), an input pad (**Figure 2, 206**) and a display (**Figure 2, 202**). (see *Specification*, page 7, line 20 – page 8, line 4) Program code allows multiple customers to pay a portion of the

bill using the customer's terminal. As each patron inputs an amount he or she wishes to pay, a new balance is calculated and displayed to the patrons. (see *Specification*, page 9, line 20 – page 11, line 8; **Figure 4, 408-410; 413**) When the running balance equals zero, an indicator communicates that no further payment is necessary. (see *Specification*, page 11, lines 8-10; **Figure 4, 111**) In summary, the invention is advantageous over prior art because, for example, it provides a system that calculates and displays a running balance and allows for customers to split bills with limited waiter intervention.

VI. ISSUE

Are Claims 29-40 and 55-69 properly rejected under 35 U.S.C. § 103 as being unpatentable over *Dorr*, U.S. Pat. No. 4,530.067 (*"Dorr"*), in view of *Meyer et al.*, U.S. Pat. No. 5,933,812 (*"Meyer"*)?

VII. GROUPING OF CLAIMS

Claim 29 forms a first group

Claim 55 forms a second group

Claims 39 and 64 form a third group

Claims 40, 65, 67 and 69 form a fourth group

Claim 30 forms a fifth group

Claims 33, 34, 58 and 59 form a sixth group

Claims 31, 32, 35-38, 56, 57, 60-63, 66 and 68 form a seventh group

These groups are to be separately considered.

The reasons why the claims of the respective groups and separately considered claims, if any, are separately patentable are found in the Argument in Section VIII. 37 C.F.R. § 1.192 (c)(7).

VIII. ARGUMENT

Claims 29-40 and 55-69 have been improperly rejected under 35 U.S.C. § 103 as being unpatentable over *Dorr* in view of *Meyer*.

A *prima facie* case of obviousness requires that *Dorr, Meyer,* or a combination of *Dorr* and *Meyer,* teach or suggest all of the elements of a given claim. The cited prior art does not satisfy this burden. Consequently, Claims 29-40 and 55-69 are improperly rejected.

Independent Claim 29

Claim 29 discloses the calculation of a running balance whereas *Dorr, Meyer* or *Dorr* in view of *Meyer* fail to provide or suggest doing the same.

Claim 29 provides:

- "a first program code for computing a total amount owed by the plurality of patrons for the ordered food items"
- "a second program code for automatically calculating a balance owed on the total amount, wherein the balance owed equals the total amount minus the first portion"

Thus, Claim 29 "comput[es] a total amount" for the bill and then "calculate[s] a balance" that takes into account a "first portion" paid by a "first...patron." If the balance does not "equal[] zero", Claim 29 provides "fifth", "sixth" and "seventh program code" to accommodate payments from subsequent patrons. In summary, Claim 29 allows patrons to split a bill, with little or no assistance from a waiter, by providing a running balance that is reduced with each patron's payment. For example, patron 1 can pay any portion of the total bill, then patron 2 can pay any portion of the remainder of the bill after what patron 1 paid is subtracted, and so on.

In contrast, *Dorr* fails to provide such a running balance. Despite the Final Office Action's position that *Dorr* provides for the "calculation of a balance owed and allowing subsequent patrons at the same table to pay until the balance is zero" (Final Office Action, Page No. 2), *Dorr* only teaches that the waiter can split the bill on a per seat basis (e.g., seats 1 and 2 split the bill with seats 3 and 4). In such an example, the waiter provides a bill for what seats 1 and 2 owe, and the waiter provides another bill to seats 3 and 4 for what they owe. Consequently, *Dorr* fails to provide a running balance.

In further contrast to Claim 29, *Meyer* also fails to provide a running balance. Instead, *Meyer* relies on the waiter to "carr[y] the unit to the guest's table along with the guest check showing the amount of the guest charge...." *Meyer*, 7:40-42. *Meyer* relies on the old printed "guest check" that the waiter has to walk over to the patrons. Thus, *Meyer* also fails to provide for a running balance that is reduced as patrons make contributions to the total bill.

Further, *Dorr* in view of *Meyer* fails to provide or even suggest the calculation of a running balance. After all, *Meyer* cannot be expected to remedy *Dorr*'s shortcomings considering *Meyer* does not address payment by multiple parties. Simply put, neither reference, nor their combination, addresses calculations of a running balance whereby patrons can split a bill with little or no assistance from a waiter. Therefore, Appellant respectfully asserts that the Examiner has failed to prove a *prima facie* case of obviousness in light of *Dorr*, *Meyer*, or even a combination of *Dorr* and *Meyer* because the references do not teach or suggest all of the elements of the claim (e.g., calculation of a running balance that is reduced as patrons make contributions to the total bill). M.P.E.P. §2143.03; *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998) (§103

rejections must not rely on incorrect factual predicates such as failing to appreciate differences between a claim and prior art).

In addition to the calculation of a running balance, Claim 29 also provides: "a display screen on the payment unit for displaying the total amount to the plurality of patrons" and "a fourth program code for automatically displaying the balance owed on the display screen." As illustrated above, *Dorr* shows that after a customer selects a method of payment" the check is printed and totaled by check printer cash register 46 for presentation to and payment by the customers." *Dorr,* 15:16-18. *Meyer* does no better than *Dorr* on this account because *Meyer* relies on the waiter to "carr[y] the unit to the guest's table along with the guest check showing the amount of the guest charge...." *Meyer,* 7:40-42. Consequently, in *Dorr, Meyer*, or even a combination of *Dorr* and *Meyer*, the patrons never see a "display screen" that features the "total amount" or the "balance owed." Instead, they see printed guest checks. This underscores the fact that the cited prior art, alone or in combination with one another, fails to calculate a running balance and allow for customers to split bills with limited waiter intervention considering the customers never see the running balance. Therefore, Appellant respectfully asserts that the Examiner has failed to prove a *prima facie* case of obviousness in light of *Dorr, Meyer,* or even a combination of *Dorr* and *Meyer* because the references do not teach or suggest all of the elements of the claim (e.g., displaying total and running balances). M.P.E.P. §2143.03; *In re Rouffet,* 47 U.S.P.Q.2d. 1454, 1455 (Fed. Cir. 1998) (§103 rejections must not rely on incorrect factual predicates such as failing to appreciate differences between a claim and prior art).

Independent Claim 55

In a similar fashion to Claim 29, Claim 55 provides a

- "a display screen on the payment unit for displaying the total amount to the plurality of patrons"
- "a first program code for automatically calculating a balanced owed on the total amount, wherein the balance owed equals the total amount minus the first portion"

Consequently, like Claim 29, Claim 55 "calculate[s] a balance" that takes into account a "first portion" paid by a "first...patron." If the balance does not "equal[] zero", Claim 55 provides a "fourth", "fifth" and "sixth program code" to accommodate payments from subsequent patrons. In summary, Claim 55, like Claim 29, allows patrons to split a bill, with little or no assistance from a waiter, by providing a running balance that is reduced with each patron's payment. As demonstrated above, *Dorr, Meyer* or *Dorr* in view of *Meyer* fail to provide or even suggest the calculation of such a running balance.

Claim 55, again in a similar fashion to Claim 29, also provides: "a display screen on the payment unit for displaying the total amount of the plurality of patrons" and "a third program code for automatically displaying the balance owed on the display screen." As illustrated above, in *Dorr, Meyer,* or even a combination of *Dorr* and *Meyer,* the patrons never see a "display screen" that features the "total amount" or the "balance owed."

In summary regarding Claim 55, Appellant respectfully asserts that the Examiner has failed to prove a *prima facie* case of obviousness in light of *Dorr, Meyer*, or even a combination of *Dorr* and *Meyer* because the references do not teach or suggest all of the elements of the claim (e.g., calculation and display of total and running balances).

M.P.E.P. §2143.03; *In re Rouffet,* 47 U.S.P.Q.2d. 1453, 1455 (Fed. Cir. 1998) (§103 rejections must not rely on incorrect factual predicates such as failing to appreciate differences between a claim and prior art).

Dependent Claims 39 and 64

Appellant traverses the rejections of Claims 39 and 64 under §103(a) because they provide for touch-sensitive screens whereas *Dorr, Meyer* or *Dorr* in view of *Meyer* fail to provide or suggest doing the same.

Claims 39 and 64 disclose the "display screen is a touch-sensitive screen that displays a list of the food items and their respective costs." Without specific reference to *Dorr, Meyer* or any combination thereof, the Final Office Action provides "Touch-sensitive screens are also notoriously old and well known in the art." Final Office Action, Page No. 3. However, nothing in the cited prior art, alone or in combination with one another, or in the general knowledge of a person of ordinary skill in the art, teaches or suggests the aforementioned claim limitations in conjunction with the limitations set out in their respective independent claims. M.P.E.P. §2143.03.

In summary, regarding Claims 39 and 64, Appellant respectfully asserts that the Examiner has failed to prove a *prima facie* case of obviousness in light of the prior art because the prior art does not teach or suggest all of the elements of the claim. M.P.E.P. §2143.03; *In re Rouffet,* 47 U.S.P.Q.2d. 1453, 1455 (Fed. Cir. 1998) (§103 rejections must not rely on incorrect factual predicates such as failing to appreciate differences between a claim and prior art).

Dependent Claims 40, 65, 67 and 69

Appellant traverses the rejections to Claims 40, 65, 67 and 69 under §103(a) because they allow customers to pick and choose which items they wish to pay for with little or no assistance from the waiter. *Dorr, Meyer* or *Dorr* in view of *Meyer* fail to provide or suggest doing the same.

In Claims 40 and 65, payment "is performed by recognizing one or more touches...of a selected one or more of the food items displayed on the touch-sensitive screen." In Claims 67 and 69, payment "is performed by recognizing one or more selections, using a means for data entry...of a selected one or more of the food items displayed on the display screen." Thus, for example only, Claims 40, 65, 67 and 69 allow customers to pick and choose which items they wish to pay for. Without specific reference to *Dorr, Meyer* or any combination of thereof, the Final Office Action provides "Touch-sensitive screens are also notoriously old and well known in the art." Final Office Action, Page No. 3. Thus, the Examiner does not show how *Dorr, Meyer* or any combination thereof, speaks to this point of novelty, and in fact the Examiner has failed to address these claim limitations in a manner sufficient to prove a *prima facie* case.

In summary, regarding Claims 40, 65, 67 and 69, Appellant respectfully asserts that the Examiner has failed to prove a *prima facie* case of obviousness in light of the prior art because the prior art does not teach or suggest all of the elements of the claim with little or no assistance from the waiter). M.P.E.P. §2143.03; *In re Rouffet,* 47 U.S.P.Q.2d. 1453, 1455 (Fed. Cir. 1998) (§103 rejections must not rely on incorrect factual predicates such as failing to appreciate differences between a claim and prior art).

Dependent Claim 30

Claim 30 provides "circuitry for transmitting the credit card information and payment information received by the payment unit for processing when the balance owed is equal to zero." The Final Office Action presumably addresses this limitation when it provides "All other claimed limitations are either disclosed or inherent." Final Office Action, Page No. 4. However, as indicated above, *Dorr*, *Meyer* or *Dorr* in view of *Meyer* fail to calculate a running balance and consequently are never "conscious" of when no balance remains. Thus, *Dorr*, *Meyer* or *Dorr* in view of *Meyer* fail to provide for transmission of data once "the balance owed in equal to zero."

In addition, Appellant respectfully asserts that the Examiner, in relying upon the theory of inherency by stating "All other claimed limitations are either disclosed or inherent", has failed to "provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 U.S.P.Q.2d. 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original); M.P.E.P. §2112.

In summary, regarding Claim 30, Appellant respectfully asserts that the Examiner has failed to prove a *prima facie* case of obviousness in light of the prior art because the prior art does not teach or suggest all of the elements of the claim. M.P.E.P. §2143.03; *In re Rouffet*, 47 U.S.P.Q.2d. 1453, 1455 (Fed. Cir. 1998) (§103 rejections must not rely on incorrect factual predicates such as failing to appreciate differences between a claim and prior art). Furthermore, the Examiner failed to provide reasoning to support any theory of inherency.

Dependent Claims 33, 34, 58 and 59

Claims 33, 34, 58 and 59 provide different colored lamps, located on the payment unit, that indicate whether the balance owed is equal to zero. The Final Office Action provides "the use of indicators are notoriously old and well known in the art of data processing to indicate to users some important state...." Final Office Action, Page No. 3. Appellant traverses this assertion. As previously shown, the prior art fails to calculate running balances. Thus, the lamps and their ability to illustrate whether a balance exists, when considered in light of their respective independent claims, establish a point of novelty not present in the prior art.

In summary, regarding Claims 33, 34, 58 and 59, Appellant respectfully asserts that the Examiner has failed to prove a *prima facie* case of obviousness in light of the prior art because the prior art does not teach or suggest all of the elements of the claims. M.P.E.P. §2143.03; *In re Rouffet,* 47 U.S.P.Q.2d. 1453, 1455 (Fed. Cir. 1998) (§103 rejections must not rely on incorrect factual predicates such as failing to appreciate differences between a claim and prior art).

Dependent Claims 31, 32, 35-38, 56, 57, 60-63, 66 and 68

Presumably in response to Claims 31, 32, 35-38, 56, 57, 60-63, 66 and 68, the Final Office Action provides "All other claimed limitations are either disclosed or inherent." Final Office Action, Page No. 3. However, these claims, when considered in light of their respective independent claims, establish points of novelty not present in the prior art. Further, the Examiner has failed to specifically address these claim limitations, and thus, for this reason alone, has failed to prove a *prima facie* case of obviousness.

In summary, regarding Claims 31, 32, 35-38, 56, 57, 60-63, 66 and 68, Appellant respectfully asserts that the Examiner has failed to prove a *prima facie* case of

obviousness in light of the prior art because the prior art does not teach or suggest all of the elements of the claims. M.P.E.P. §2143.03; *In re Rouffet*, 47 U.S.P.Q.2d. 1453, 1455 (Fed. Cir. 1998).

Claims 29-40 and 55-65

In addition to the arguments set out above, Claims 29-40 or 55-65 are not rejectionable under §103 "as being unpatentable over *Dorr* ... in view of *Meyer*" because there is no motivation to combine these sources considering they address different problems. M.P.E.P. §2143.01.

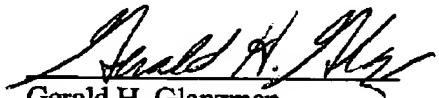
Dorr is primarily concerned with "an improved restaurant management and control system" (*Dorr*, 2:22-23) by allowing for increased efficiencies in the transfer of orders from the waiter to the kitchen, service bar, Maitre D', cash register and parking attendant. *Dorr*, 2:47-60. *Meyer* is mainly concerned with providing a "spill resistant," "portable transaction data entry terminal" that allows the guest to input data into the terminal." *Meyer*, 3:1-11.

In contrast, the present invention discloses "an ability for the bill to be split among the various patrons at a table and for each of such patrons to individually pay their desired portion using a credit card." Application, Page No. 2, lines 12-14.

In short, the Examiner's motivation to combine the references is solely her subjective opinion unsupported by facts.

Consequently, Appellant respectfully asserts that the Examiner has failed to prove a *prima facie* case of obviousness in light of the prior art because there is no suggestion or motivation to modify or to combine the reference teachings. M.P.E.P. §2143.03; *In re Rouffet,* 47 U.S.P.Q.2d. 1453, 1455 (Fed. Cir. 1998) (court requires the examiner to show a motivation to combine the §103 references).

Respectfully submitted,



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APPENDIX

29. In a restaurant, a system comprising:

a waiter's terminal for inputting orders of food items ordered by a plurality of patrons at a table;

a first program code for computing a total amount owed by the plurality of patrons for the ordered food items;

a payment unit physically located at the table;

transmission circuitry for transmitting the total amount from the waiter's terminal to the payment unit;

a display screen on the payment unit for displaying the total amount to the plurality of patrons;

a credit card reader on the payment unit for receiving first credit card information from a first credit card swiped through the credit card reader by a first one of the plurality of patrons;

a numeric input pad on the payment unit for receiving a first portion entered by the first one of the plurality of patrons, wherein the first portion represents an amount of money to be paid by the first one of the plurality of patrons by a debit to an account of the first credit card;

a second program code for automatically calculating a balance owed on the total amount, wherein the balance owed equals the total amount minus the first portion;

a third program code for automatically determining if the balance owed equals zero;

a fourth program code for automatically displaying the balance owed on the display screen;

the credit card reader receiving second credit card information from a second credit card swiped through the credit card reader by a second one of the plurality of patrons when the balance owed is greater than zero;

the numeric input pad receiving a second portion entered by the second one of the plurality of patrons, wherein the second portion represents an amount of money to be paid by the second one of the plurality of patrons by a debit to an account of the second credit card;

a fifth program code for automatically calculating a balance owed on the total amount, wherein the balance owed equals the total amount minus the first and second portions;

a sixth program code for automatically determining if the balance owed equals zero; and

a seventh program code for automatically displaying the balance owed on the display screen.

30. The system as recited in claim 29, further comprising:

circuitry for transmitting the credit card information and payment information received by the payment unit for processing when the balance owed is equal to zero.

31. The system as recited in claim 30, wherein the first program code for computing the total amount includes program code for computing an applicable tax amount to be added as part of the total amount owed by the plurality of patrons.

32. The system as recited in claim 31, wherein the applicable tax amount is also displayed on the screen of the payment unit at the table.

33. The system as recited in claim 29, further comprising:

a lamp of a first color illuminated on the payment unit indicating that the balance owed is not equal to zero.

34. The system as recited in claim 33, further comprising:

a lamp of a second color illuminated on the payment unit indicating that the balance owed is equal to zero.

35. The system as recited in claim 29, further comprising:

an eighth program code for computing a suggested gratuity to be paid by the plurality of patrons; and

the display screen displaying the suggested gratuity.

36. The system as recited in claim 35, wherein the suggested gratuity is computed as a function of a percentage of the total amount, and further comprising the display screen displaying the percentage with the displayed suggested gratuity.

37. The system as recited in claim 29, further comprising:

program code for displaying on the display screen a request for the plurality of patrons to add a gratuity to the total amount.

38. The system as recited in claim 37, further comprising:

the numeric input pad for receiving an input from one of the plurality of patrons to add the gratuity to the total amount.

39. The system as recited in claim 29, wherein the display screen is a touch-sensitive screen that displays a list of the food items and their respective costs.

40. The system as recited in claim 39, wherein the receiving of the first portion entered by the first one of the plurality of patrons into the payment unit is performed by recognizing one or more touches by the first one of the plurality of patrons of a selected one or more of the food items displayed on the touch-sensitive screen.

55. A payment unit operable for permitting a plurality of patrons to pay a bill at a table comprising;

receiving circuitry for receiving from a waiter's terminal a total amount owed by the plurality of patrons for ordered food items;

a display screen on the payment unit for displaying the total amount to the plurality of patrons;

a credit card reader on the payment unit for receiving first credit card information from a first credit card swiped through the credit card reader by a first one of the plurality of patrons;

a numeric input pad on the payment unit for receiving a first portion entered by the first one of the plurality of patrons, wherein the first portion represents an amount of money to be paid by the first one of the plurality of patrons by a debit to an account of the first credit card;

a first program code for automatically calculating a balance owed on the total amount, wherein the balance owed equals the total amount minus the first portion;

a second program code for automatically determining if the balance owed equals zero;

a third program code for automatically displaying the balance owed on the display screen;

the credit card reader receiving second credit card information from a second credit card swiped through the credit card reader by a second one of the plurality of patrons when the balance owed is greater than zero;

the numeric input pad receiving a second portion entered by the second one of the plurality of patrons, wherein the second portion represents an amount of money to be paid by the second one of the plurality of patrons by a debit to an account of the second credit card;

a fourth program code for automatically calculating a balance owed on the total amount, wherein the balance owed equals the total amount minus the first and second portions;

a fifth program code for automatically determining if the balance owed equals zero; and

a sixth program code for automatically displaying the balance owed on the display screen.

56. The payment unit as recited in claim 55, wherein the first program code for computing the total amount includes program code for computing an applicable tax amount to be added as part of the total amount owed by the plurality of patrons.

57. The payment unit as recited in claim 56, wherein the applicable tax amount is also displayed on the display screen of the payment unit at the table.

58. The payment unit as recited in claim 55, further comprising:

a lamp of a first color illuminated on the payment unit indicating that the balance owed is not equal to zero.

59. The payment unit as recited in claim 58, further comprising:

a lamp of a second color illuminated on the payment unit indicating that the balance owed is equal to zero.

60. The payment unit as recited in claim 55, further comprising:

a seventh program code for displaying a suggested gratuity to be paid by the plurality of patrons.

61. The payment unit as recited in claim 60, wherein the suggested gratuity is computed as a function of a percentage of the total amount, and further comprising the display screen displaying the percentage with the displayed suggested gratuity.

62. The payment unit as received in claim 55, further comprising:

program code for displaying on the display screen a request for the plurality of patrons to add a gratuity to the total amount.

63. The payment unit as recited in claim 62, further comprising:

the numeric input pad for receiving an input from one of the plurality of patrons to add the gratuity to the total amount.

64. The payment unit as recited in claim 55, wherein the display screen is a touch-sensitive screen that displays a list of the food items and their respective costs.

65. The payment unit as recited in claim 64, wherein the receiving of the first portion entered by the first one of the plurality of patrons into the payment unit is performed by recognizing one or more touches by the first one of the plurality of patrons of a selected one or more of the food items displayed on the touch-sensitive screen.

66. The system as recited in claim 29, wherein the display screen displays a list of the food items.

67. The system as recited in claim 66, wherein the receiving of the first portion entered by the first one of the plurality of patrons into the payment unit is performed by recognizing one or more selections, using a means for data entry, by the first one of the plurality of patrons of a selected one or more of the food items displayed on the display screen.

68. The system as recited in claim 55, wherein the display screen displays a list of the food items.

69. The system as recited in claim 68, wherein the receiving of the first portion entered by the first one of the plurality of patrons into the payment unit is performed by recognizing one or more selections, using a means for data entry, by the first one of the plurality of patrons of a selected one or more of the food items displayed on the display screen.